Reply to Office Action of March 13, 2009

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

1. (Currently Amended) A method of obtaining secure registration by a memory module (UICC) in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number;

generating a radio access network key (RAK) as a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK);

generating temporary registration key (RGK) as a function of the RAK and a user identification number; and

authenticating at least one registration message in the MBMS based on the RGK, wherien the RGK is a function of of the RAK, a service identification number and a user identification number.

- 2. (Original) The method of claim 1, further comprising transmitting the RGK to a mobile telephone.
- 3. (Original) The method of claim 1, further comprising receiving a provisioning message from a broadcast-multicast service center.
- 4. (Original) The method of claim 3, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 5. (Original) The method of claim 3, further comprising extracting the PK from the provisioning message.
- 6. (Canceled) The method of claim 1, wherein the RGK is a function of the RAK, a service identification number and a user identification number.

- 7. (Currently Amended) The method of claim [[6]] 1, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.
- 8. (Original) The method of claim 1, wherein the UICC comprises a subscriber identity module (SIM) in a Global System for Mobile communication (GSM) system.
- 9. (Original) The method of claim 1, wherein the UICC comprises a removable user identity module (RUIM) in a code division multiple access (CDMA) system.
- 10. (Original) The method of claim 1, wherein the PK is provisioned by using a public key.
- 11. (Original) The method of claim 1, wherein the BAK is provisioned by using a public key.
- 12. (Currently Amended) A method of obtaining secure registration by a mobile station in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number from a radio access network;

transmitting the random number to a memory module (UICC);

receiving from the UICC a temporary registration key (RGK) based on the random number and a user identification number; and

authenticating at least one registration message in the MBMS based on the RGK, wherein the RGK is a function of a radio access network key (RAK), a service identification number and a user identification number, and wherein the RAK is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).

13. (Canceled) The method of claim 12, wherein the RGK is a function of a radio access network key (RAK) which is a function of the random number and a key selected from

the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).

- 14. (Currently Amended) The method of claim [[13]] 12, wherein the PK is extracted from a provisioning message received from a broadcast-multicast service center.
- 15. (Original) The method of claim 14, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 16. (Canceled) The method of claim 13, wherein the RGK is a function of the RAK, a service identification number and a user identification number.
- 17. (Currently Amended) The method of claim [[16]] 12, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.
- 18. (Original) The method of claim 12, wherein the UICC comprises a subscriber identity module (SIM) in a Global System for Mobile communication (GSM) system.
- 19. (Original.) The method of claim 12, wherein the UICC comprises a removable user identity module (RUTM) in a code division multiple access (CDMA) system.
- 20. (Original) The method of claim 12, wherein the PK is provisioned by using a public key.
- 21. (Original) The method of claim 12, wherein the BAK is provisioned by using a public key.
- 22. (Currently Amended) A memory module stored on a computer readable storage medium, comprising:

receiving logic configured for receiving a random number;

means for generating a radio access network key (RAK) as a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK);

means for generating a temporary registration key (RGK) as a function of the RAK and a user identification number; and

means for authenticating at least one registration message in the MBMS based on the RGK, wherein the RGK is a function of the RAK, a service identification number and a user identification number.

- 23. (Original) The memory module of claim 22, further comprising means for transmitting the RGK to a mobile telephone.
- 24. (Original) The memory module of claim 22, further comprising means for receiving a provisioning message from a broadcast-multicast service center.
- 25. (Original) The memory module of claim 24, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 26. (Original) The memory module of claim 24, further comprising means for extracting the PK from the provisioning message.
- 27. (Canceled) The memory module of claim 22, wherein the RGK is a function of the RAK, a service identification number and a user identification number.
- 28. (Currently Amended) The memory module of claim [[27]] <u>22</u>, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.
- 29. (Original) The memory module of claim 22, wherein the PK is provisioned by using a public key.

- 30. (Original) The memory module of claim 22, wherein the BAK is provisioned by using a public key.
  - 31. (Currently Amended) A mobile station apparatus, comprising: receiving logic configured for receiving a random number from a radio access network; means for transmitting the random number to a memory module (UICC);

means for receiving from the UICC a temporary registration key (RGK) based on the random number and a user identification number; and

means for authenticating at least one registration message in the MBMS based on the RGK, wherein the RGK is a function of a radio access network key (RAK), a service identification number and a user identification number, and wherein the RAK is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).

- 32. (Canceled) The apparatus of claim 31, wherein the RGK is a function of a radio access network key (RAK) which is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).
- 33. (Currently Amended) The apparatus of claim [[32]] 31, wherein the PK is extracted from a provisioning message received from a broadcast-multicast service center.
- 34. (Original) The apparatus of claim 33, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 35. (Canceled) The apparatus of claim 32, wherein the RGK is a function of the RAK, a service identification number and a user identification number.
- 36. (Currently Amended) The apparatus of claim [[35]] 31, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.

- 37. (Original) The apparatus of claim 31, wherein the UICC comprises a subscriber identity module (SIM) in a Global System for Mobile communication (GSM) system.
- 38. (Original) The apparatus of claim 31, wherein the UICC comprises a removable user identity module (RUIM) in a code division multiple access (CDMA) system.
- 39. (Original) The apparatus of claim 31, wherein the PK is provisioned by using a public key.
- 40. (Original) The apparatus of claim 31, wherein the BAK is provisioned by using a public key.
- 41. (Currently Amended) A computer readable medium embodying a method of obtaining secure registration by a memory module (UICC) in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number;

generating a radio access network key (RAK) as a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK);

generating a temporary registration key (RGK) as a function of the RAK and a user identification number; and

authenticating at least one registration message in the MBMS based on the RGK, wherein the RGK is a function of the RAK, a service identification number and a user identification number.

- 42. (Original) The computer readable medium of claim 41, wherein the method further comprises transmitting the RGK to a mobile telephone.
- 43. (Original) The computer readable medium of claim 41, wherein the method further comprises receiving a provisioning message from a broadcast-multicast service center.

- 44. (Original) The computer readable medium of claim 43, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 45. (Original) The computer readable medium of claim 43, wherein the method further comprises extracting the PK from the provisioning message.
- 46. (Currently Amended) The computer readable medium of claim 41, wherein the RGK is a function of the RAK, a service identification number and a user identification number.
- 47. (Currently Amended) The computer readable medium of claim [[46]] 41, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.
- 48. (Original) The computer readable medium of claim 41, wherein the UICC comprises a subscriber identity module (SIM) in a Global System for Mobile communication (GSM) system.
- 49. (Original) The computer readable medium of claim 41, wherein the UICC comprises a removable user identity module (RUIM) in a code division multiple access (CDMA) system.
- 50. (Original) The computer readable medium of claim 41, wherein the PK is provisioned by using a public key.
- 51. (Original) The computer readable medium of claim 41, wherein the BAK is provisioned by using a public key.
- 52. (Currently Amended) A computer readable medium embodying a method obtaining secure registration by a mobile station in a multicast-broadcast-multimedia system (MBMS), the method comprising:

receiving a random number from a radio access network;

transmitting the random number to a memory module (UICC);

receiving from the UICC a temporary registration key (RGK) based on the random number and a user identification number; and

authenticating at least one registration message in the MBMS based on the RGK, wherein the RGK is a function of a radio access network key (RAK), a service identification number and a user identification number, and wherein the RAK is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).

- 53. (Canceled) The computer readable medium of claim 52, wherein the RGK is a function of a radio access network key (RAK) which is a function of the random number and a key selected from the group consisting of a public land mobile network key (PK) and a broadcast access key (BAK).
- 54. (Currently Amended) The computer readable medium of claim [[53]] <u>52</u>, wherein the PK is extracted from a provisioning message received from a broadcast-multicast service center.
- 55. (Original) The computer readable medium of claim 54, wherein the provisioning message is a function of the PK and a permanent registration key (RK).
- 56. (Canceled) The computer readable medium of claim 53, wherein the RGK is a function of the RAK, a service identification number and a user identification number.
- 57. (Currently Amended) The computer readable medium of claim [[56]] <u>52</u>, wherein the RGK is a function of the RAK and a cyclic redundancy code (CRC) computed from the service identification number and the user identification number.

- 58. (Original) The computer readable medium of claim 52, wherein the UICC comprises a subscriber identity module (SIM) in a Global System for Mobile communication (GSM) system.
- 59. (Original) The computer readable medium of claim 52, wherein the UICC comprises a removable user identity module (RUIM) in a code division multiple access (CDMA) system.
- 60. (Original) The computer readable medium of claim 52, wherein the PK is provisioned by using a public key.
- 61. (Original) The computer readable medium of claim 52, wherein the BAK is provisioned by using a public key.